

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

OSSES et. al

U.S. Patent No. 6,265,373

Issued: July 24, 2001

For: **COMPOSITION COMPRISING A MIXTURE OF ALKOXYLATED MONO-, DI-
AND TRIGLYCERIDES AND GLYCERINE**

PRELIMINARY AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Sir:

Before action in this application, please amend the above-identified application as follows:

IN THE SPECIFICATION

Please amend the specification as indicated in Appendices C and D submitted herewith. Appendix C is a marked-up copy of the amendments to the specification and Appendix D is a clean copy of the amendments to the specification.

IN THE CLAIMS

Please amend claims 1-2, 5, and 8-11 as indicated in Appendices A and B submitted herewith. Appendix A is a marked-up copy of the amended claims and Appendix B is a clean copy of the amended claims.

REMARKS

Claims 1-11 are currently pending in the present application. The amendments do not add any new matter under 35 U.S.C. §132. Basis for these amendments can be found in the examples provided in Table I on column 6, lines 12-49. In particular, for each of the examples indicated in said Table, the amount of mono-, di- and tri-ester is indicated. These amounts result from the ratio of adducts used, for example triglyceride and glycerine in Example A. It thus becomes immediately evident that the present application refers to a composition containing a high amount of monoglyceride (compound (iii)) and a low amount of triglycerides (compound (i)). From the paragraph beneath Table II on column 7, lines 25-35 it further becomes evident that the lower range refers to the tri-ester content ("when the tri-ester content is lower than 1..."). Hence, a skilled person reading the present application was immediately aware that the weight ratio "(i)/(ii)/(iii)" was erroneous and could immediately establish that said weight ratio should read "(iii)/(ii)/(i)" being 46-90/9-35/1-15. Accordingly, entry of the amendments prior to examination of the application is respectfully requested.

Respectfully submitted,

NATH & ASSOCIATES PLLC

Date: 14 Feb 2002

NATH & ASSOCIATES PLLC

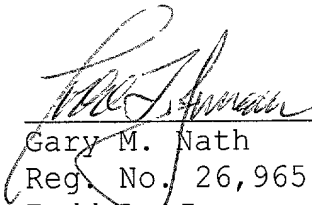
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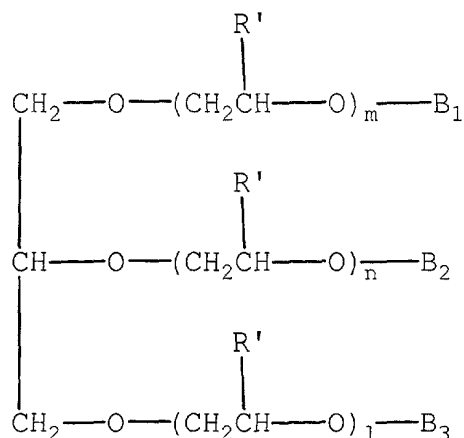
Appendix A

Please amend the following claims as indicated in the following marked up copy of the claims.

1. (Once Amended) Composition comprising
 - (i) compounds represented by the following formula (I),
wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);
 - (ii) compounds represented by the following formula (I),
wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II),
the remainder representing H;
 - (iii) compounds represented by the following formula (I),
wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;

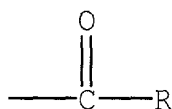
(iv) compounds represented by the following formula (I),
 wherein each of B1, B2 and B3 represent H;
 the weight ratio of the compounds [(i)/(ii)/(iii)]
(iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l
 independently representing a number from 0 to 4, the sum of
 m, n and l being in the range of 1 to 4;

Formula (II):



wherein R represents an alkyl or alkenyl group having 6 to
 22 carbon atoms.

2. (Once Amended) Composition according to claim 1, wherein
 the weight ratio of the compounds [(i)/(ii)/(iii)]
(iii)/(ii)/(i) is 60 to 83/16 to 35/1 to 6.

5. (Once Amended) Composition comprising

(i) compounds represented by the following formula (I),

wherein each of B₁, B₂ and B₃ independently represent a group represented by the following formula (II);

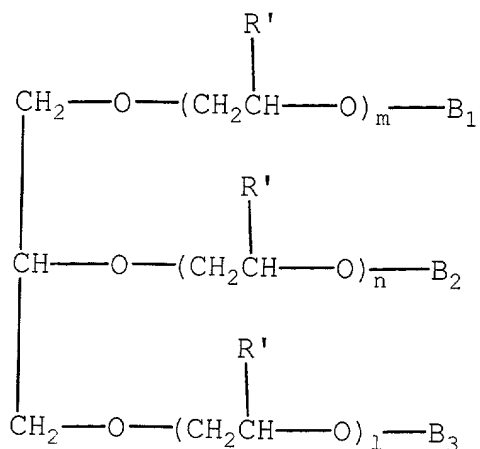
(ii) compounds represented by the following formula (I), wherein two of B₁, B₂ and B₃ independently represent a group represented by the following formula (II), the remainder representing H;

(iii) compounds represented by the following formula (I), wherein one of B₁, B₂ and B₃ represents a group represented by the following formula (II); the remainder representing H;

(iv) compounds represented by the following formula (I), wherein each of B₁, B₂ and B₃ represent H;

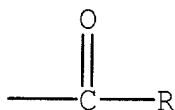
the weight ratio of the compounds [(i)/(ii)/(iii)] (iii)/(ii)/(i) being 60 to 83/16 to 35/1 to 6:

Formula (I):



R' representing H, and each of m, n, and 1 independently representing a number from 0 to 4, the sum of m, n and 1 being in the range of 1.5 to 3.0;

Formula (II):



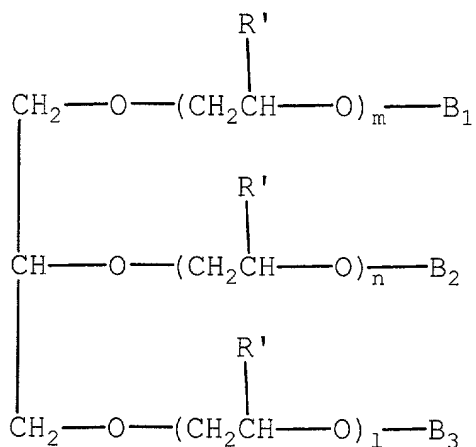
wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.

8. (Once Amended) Method for the preparation of a composition comprising

- (i) compounds represented by the following formula (I), wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);
- (ii) compounds represented by the following formula (I), wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II), the remainder representing H;
- (iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;
- (iv) compounds represented by the following formula (I), wherein each of B1, B2 and B3 represent H;

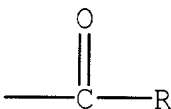
the weight ratio of the compounds [(i)/(ii)/(iii)] (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of 1 to 4;

Formula (II):

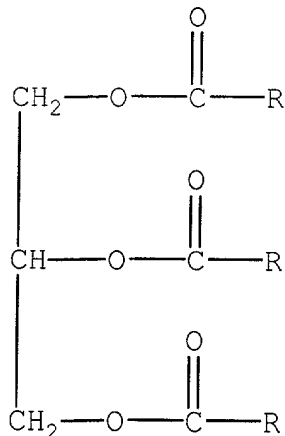


wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms;

the method comprising the following steps:

- a) subjecting a mixture of glycerine and a compound of the following formula (III) to an interestification reaction:

(III)



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms, and

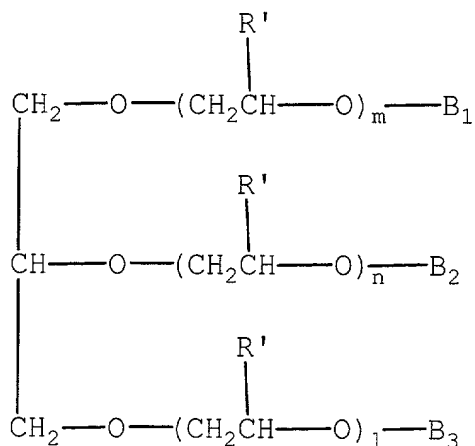
- b) subjecting the reaction mixture obtained in step a) to an alkoxylation using an alkylene oxide having 2 or 3 carbon atoms in the presence of an alkaline catalyst.

9. (Once Amended) Method for the preparation of a composition comprising

- (i) compounds represented by the following formula (I), wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);
- (ii) compounds represented by the following formula (I), wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II), the remainder representing H;
- (iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;
- (iv) compounds represented by the following formula (I), wherein each of B1, B2 and B3 represent H;

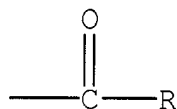
the weight ratio of the compounds [(i)/(ii)/(iii)] (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of 1 to 4;

Formula (II):

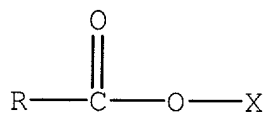


wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms;

the method comprising the following steps:

- a') reacting a mixture of glycerine and alkylene oxide having 2 or 3 carbon atoms in the presence of an alkaline catalyst, and
- b') reacting the reaction mixture obtained in step a') with a compound of the following formula (IV):

(IV)



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms, and X represents a methyl group or H.

10. (Once Amended) Detergent composition containing a composition comprising the following compounds (i) to (iv) in an amount of 0.5 to 20 wt.-%.

(i) compounds represented by the following formula (I), wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);

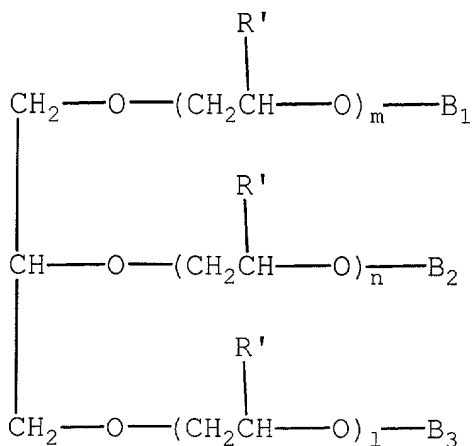
(ii) compounds represented by the following formula (I), wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II), the remainder representing H;

(iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;

(iv) compounds represented by the following formula (I), wherein each of [Bi] B1, B2 and B3 represent H;

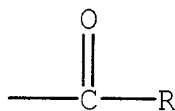
the weight ratio of the compounds [(i)/(ii)/(iii)] (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of 1 to 4;

Formula (II):



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.

11. (Once Amended) Detergent composition containing a composition comprising the following compounds (i) to (iv) in an amount of 1 to 8 wt.-%.

(i) compounds represented by the following formula (I), wherein each of B₁, B₂ and B₃ independently represent a group represented by the following formula (II);

(ii) compounds represented by the following formula [(II)] (I), wherein two of B₁, B₂ and B₃ independently represent a group represented by the following formula (II), the remainder representing

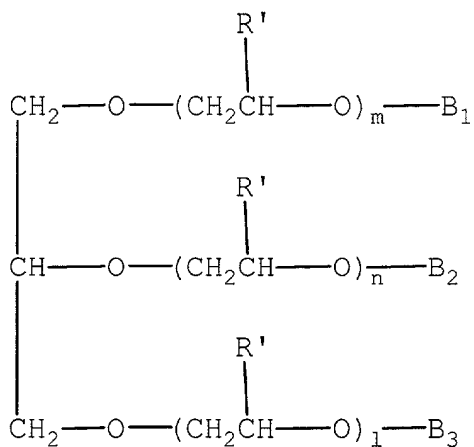
H;

(iii) compounds represented by the following formula (I), wherein one of B₁, B₂ and B₃ represents a group represented by the following formula (II); the remainder representing H;

(iv) compounds represented by the following formula (I), wherein each of B₁, B₂ and B₃ represent H;

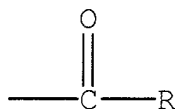
the weight ratio of the compounds [(i)/(ii)/(iii)] (iii)/(ii)/(i) being 60 to 83/16 to 35/1 to 6:

Formula (I):



R' representing H, and each of m, n, and l independently representing a number from 1 to 4, the sum of m, n and l being in the range of 1.5 to 3.0;

Formula (II):



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.

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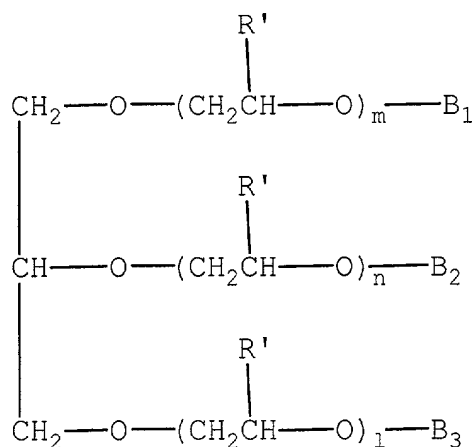
Appendix B

Please amend the following claims as indicated in the following marked up copy of the claims.

1. (Once Amended) Composition comprising
- (i) compounds represented by the following formula (I), wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);
 - (ii) compounds represented by the following formula (I), wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II), the remainder representing H;
 - (iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;

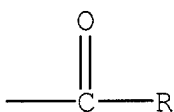
(iv) compounds represented by the following formula (I),
 wherein each of B1, B2 and B3 represent H;
 the weight ratio of the compounds (iii)/(ii)/(i) being 46
 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l
 independently representing a number from 0 to 4, the sum of
 m, n and l being in the range of 1 to 4;

Formula (II):



wherein R represents an alkyl or alkenyl group having 6 to
 22 carbon atoms.

2. (Once Amended) Composition according to claim 1, wherein
 the weight ratio of the compounds (iii)/(ii)/(i) is 60 to 83/16
 to 35/1 to 6.

5. (Once Amended) Composition comprising

(i) compounds represented by the following formula (I),

wherein each of B₁, B₂ and B₃ independently represent a group represented by the following formula (II);

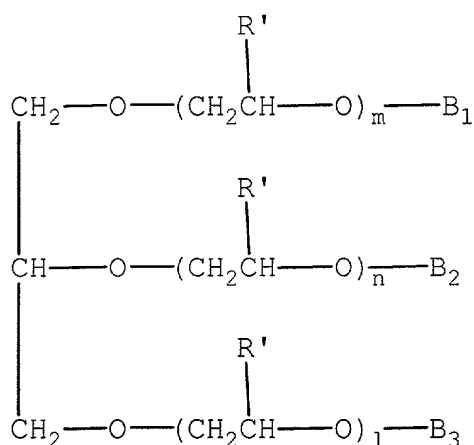
(ii) compounds represented by the following formula (I), wherein two of B₁, B₂ and B₃ independently represent a group represented by the following formula (II), the remainder representing H;

(iii) compounds represented by the following formula (I), wherein one of B₁, B₂ and B₃ represents a group represented by the following formula (II); the remainder representing H;

(iv) compounds represented by the following formula (I), wherein each of B₁, B₂ and B₃ represent H;

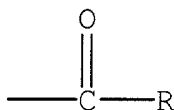
the weight ratio of the compounds (iii)/(ii)/(i) being 60 to 83/16 to 35/1 to 6:

Formula (I):



R' representing H, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of 1.5 to 3.0;

Formula (II):



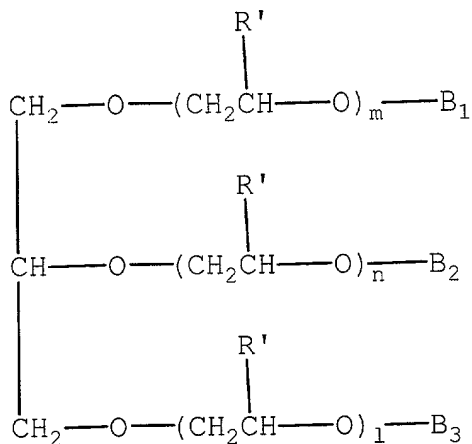
wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.

8. (Once Amended) Method for the preparation of a composition comprising

- (i) compounds represented by the following formula (I), wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);
- (ii) compounds represented by the following formula (I), wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II), the remainder representing H;
- (iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;
- (iv) compounds represented by the following formula (I), wherein each of B1, B2 and B3 represent H;

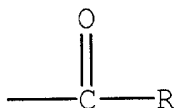
the weight ratio of the compounds (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of 1 to 4;

Formula (II):

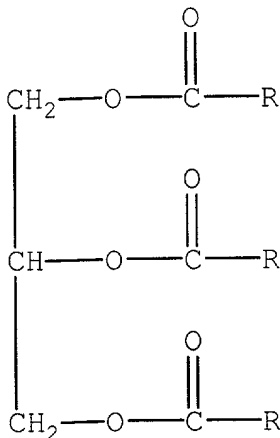


wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms;

the method comprising the following steps:

- a) subjecting a mixture of glycerine and a compound of the following formula (III) to an interestification reaction:

(III)



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms, and

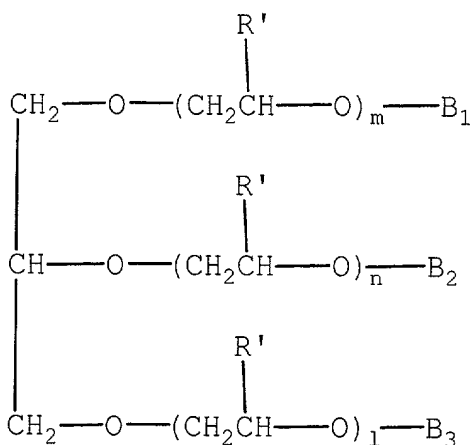
- b) subjecting the reaction mixture obtained in step a) to an alkoxylation using an alkylene oxide having 2 or 3 carbon atoms in the presence of an alkaline catalyst.

9. (Once Amended) Method for the preparation of a composition comprising

- (i) compounds represented by the following formula (I), wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);
- (ii) compounds represented by the following formula (I), wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II), the remainder representing H;
- (iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;
- (iv) compounds represented by the following formula (I), wherein each of B1, B2 and B3 represent H;

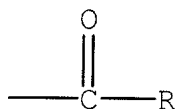
the weight ratio of the compounds (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of 1 to 4;

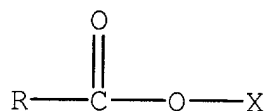
Formula (II):



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms;

the method comprising the following steps:

- a') reacting a mixture of glycerine and alkylene oxide having 2 or 3 carbon atoms in the presence of an alkaline catalyst, and
- b') reacting the reaction mixture obtained in step a') with a compound of the following formula (IV):



(IV)

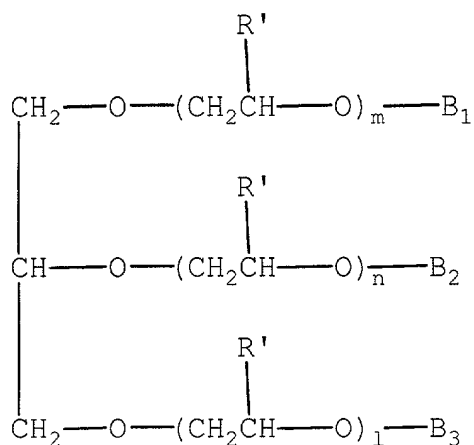
wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms, and X represents a methyl group or H.

10. (Once Amended) Detergent composition containing a composition comprising the following compounds (i) to (iv) in an amount of 0.5 to 20 wt.-%.

- (i) compounds represented by the following formula (I), wherein each of B1, B2 and B3 independently represent a group represented by the following formula (II);
- (ii) compounds represented by the following formula (I), wherein two of B1, B2 and B3 independently represent a group represented by the following formula (II), the remainder representing H;
- (iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;
- (iv) compounds represented by the following formula (I), wherein each of B1, B2 and B3 represent H;

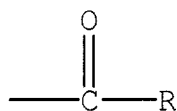
the weight ratio of the compounds (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:

Formula (I):



R' representing H or CH₃, and each of m, n, and l independently representing a number from 0 to 4, the sum of m, n and l being in the range of 1 to 4;

Formula (II):



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.

11. (Once Amended) Detergent composition containing a composition comprising the following compounds (i) to (iv) in an amount of 1 to 8 wt.-%.

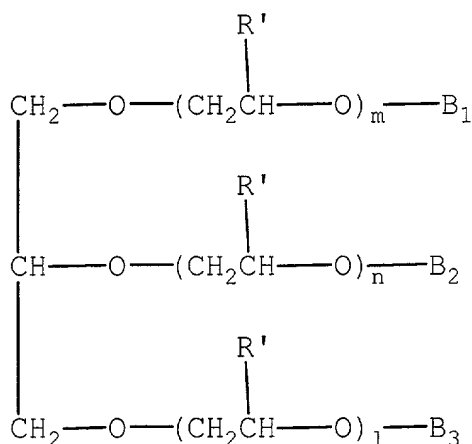
- (i) compounds represented by the following formula (I), wherein each of B₁, B₂ and B₃ independently represent a group represented by the following formula (II);
- (ii) compounds represented by the following formula (I), wherein two of B₁, B₂ and B₃ independently represent a group represented by the following formula (II), the remainder representing H;

(iii) compounds represented by the following formula (I), wherein one of B1, B2 and B3 represents a group represented by the following formula (II); the remainder representing H;

(iv) compounds represented by the following formula (I), wherein each of B1, B2 and B3 represent H;

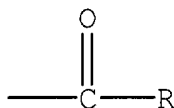
the weight ratio of the compounds (iii)/(ii)/(i) being 60 to 83/16 to 35/1 to 6:

Formula (I):



R' representing H, and each of m, n, and l independently representing a number from 1 to 4, the sum of m, n and l being in the range of 1.5 to 3.0;

Formula (II):



wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.

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Appendix C

Please amend the instant specification as indicated in the following marked up copy of the specification.

Please amend the abstract by replacing the second to last paragraph with the following:

--wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.; and the weight ratio of [triglyceride/diglyceride/monoglyceride] monoglyceride/diglyceride/triglyceride being 46 to 90/9 to 35/1 to 15.--

Please amend the specification by replacing the paragraph on column 2, lines 7-8 with the following:

--the weight ratio of the compounds [(i)/(ii)/(iii)] (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:--

Please amend the specification by replacing the paragraph on column 2, lines 32-34 with the following:

--The weight ratio of the compounds [(i)/(ii)/(iii)]
(iii)/(ii)/(i) in the composition of the present invention is preferably 60 to 83/16 to 35/1 to 6.--

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Appendix D

Please amend the instant specification as indicated in the following clean copy of the specification.

Please amend the abstract by replacing the second to last paragraph with the following:

--wherein R represents an alkyl or alkenyl group having 6 to 22 carbon atoms.; and the weight ratio of monoglyceride/diglyceride/triglyceride being 46 to 90/9 to 35/1 to 15.--

Please amend the specification by replacing the paragraph on column 2, lines 7-8 with the following:

--the weight ratio of the compounds (iii)/(ii)/(i) being 46 to 90/9 to 35/1 to 15:--

Please amend the specification by replacing the paragraph
on column 2, lines 32-34 with the following:

--The weight ratio of the compounds (iii)/(ii)/(i) in the
composition of the present invention is preferably 60 to 83/16
to 35/1 to 6.--